

SEQUENCE LISTING

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Hodges, Robert S.

PSUEDOMONAS TREATMENT
COMPOSITION AND METHOD

8900-0008.30

US 09/329,884
1999-06-11

US 60/089,155
1998-06-12

22

FastSEQ for Windows Version 3.0

1
387

DNA

Pseudomonas aeruginosa

CDS

(0)...(0)

1

gcgcctcgagg gtaccgaatt cgccacgcgt cagcttagcg aacgcgtgac cctggccagt 60
ggtctcaaga cgaaagttag cgatatcttc ttcaggatg gtcctgccc ggctaatact 120
gctgccacgg caggcatcga gaaagatacc gacatcaacg gcaagtatgt tgccaaggta 180
acaactggtg gcaccgcagc tgcgtctgggt gttgcacta tgcgtgtac tatgaaagcc 240
tctgatgtgg ctactcctct gagggggaaa actctgactt tgactctagg aaatgctgac 300
aagggttctt acacttgggc ctgtacttcc aacgcagata acaagtacct gccaaaaacc 360
tgccagactg ctaccactac cactccg 387

2

129

PRT

Pseudomonas aeruginosa

2

Ala	Leu	Glu	Gly	Thr	Glu	Phe	Ala	Arg	Ala	Gln	Leu	Ser	Glu	Arg	Met
1					5				10				15		
Thr	Leu	Ala	Ser	Gly	Leu	Lys	Thr	Lys	Val	Ser	Asp	Ile	Phe	Ser	Gln
									20	25			30		
Asp	Gly	Ser	Cys	Pro	Ala	Asn	Thr	Ala	Ala	Thr	Ala	Gly	Ile	Glu	Lys
									35	40			45		
Asp	Thr	Asp	Ile	Asn	Gly	Lys	Tyr	Val	Ala	Lys	Val	Thr	Thr	Gly	Gly
									50	55			60		
Thr	Ala	Ala	Ala	Ser	Gly	Gly	Cys	Thr	Ile	Val	Ala	Thr	Met	Lys	Ala
									65	70			75		80
Ser	Asp	Val	Ala	Thr	Pro	Leu	Arg	Gly	Lys	Thr	Leu	Thr	Leu	Thr	Leu
									85	90			95		
Gly	Asn	Ala	Asp	Lys	Gly	Ser	Tyr	Thr	Trp	Ala	Cys	Thr	Ser	Asn	Ala
									100	105			110		
Asp	Asn	Lys	Tyr	Leu	Pro	Lys	Thr	Cys	Gln	Thr	Ala	Thr	Thr	Thr	Thr
									115	120			125		
Pro															

卷之三

<210> 3
 <211> 369
 <212> DNA
 <213> Pseudomonas aeruginosa

<400> 3
 ggcgtcgagg gtaccgaatt cgctcggtcg gaaggcgcatt ctgctttgc ttccggtaat
 60
 ccgttgaaga ctaccgttga agaggcgctt ttcgtggaa ggagcgtgaa gagcggtaca
 120
 ggtacagagg acgctactaa gaaagagggtt cctctgggg tggccgcaga tgctaacaaa
 180
 ctgggtacta tcgactcaa acccgatcct gctgatggta ctgcagatat cactttgact
 240
 ttcaactatgg gcgggcagg accgaagaat aaaggaaaa ttattaccct gactcgact
 300
 gcagctgatg gtctctggaa gtgcaccagt gatcaggatg agcagtttat tccgaaaggt
 360
 tgctcttagg
 369

<210> 4
 <211> 123
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 4
 Ala Leu Glu Gly Thr Glu Phe Ala Arg Ser Glu Gly Ala Ser Ala Leu
 1 5 10 15
 Ala Ser Val Asn Pro Leu Lys Thr Thr Val Glu Glu Ala Leu Ser Arg
 20 25 30
 Gly Trp Ser Val Lys Ser Gly Thr Gly Thr Glu Asp Ala Thr Lys Lys
 35 40 45
 Glu Val Pro Leu Gly Val Ala Ala Asp Ala Asn Lys Leu Gly Thr Ile
 50 55 60
 Ala Leu Lys Pro Asp Pro Ala Asp Gly Thr Ala Asp Ile Thr Leu Thr
 65 70 75 80
 Phe Thr Met Gly Gly Ala Gly Pro Lys Asn Lys Gly Lys Ile Ile Thr
 85 90 95
 Leu Thr Arg Thr Ala Ala Asp Gly Leu Trp Lys Cys Thr Ser Asp Gln
 100 105 110
 Asp Glu Gln Phe Ile Pro Lys Gly Cys Ser Arg
 115 120

<210> 5
 <211> 366
 <212> DNA
 <213> Pseudomonas aeruginosa

<220>
 <221> CDS
 <222> (0)...(0)

<400> 5
 ggcgtcgagg gtaccgaatt cgccgtcgtaa gaaagggtcgat cggcgctggc gacgatcaac
 ccgttgaaga ctaccgttga agagtcgtcgat tcgcgtggaa ttgcgtggtag caaaaattaaa
 atgggtacta ctgtttctac tgccggcata acatatgcggc gcgtcgagcc ggatgcac
 aatgggtg taattgtgt agcaatcgaa gatagtggtg cgggtgatata taccttacc
 ttccagactg gtacctctat tcccaagaat gctactaaat ttatcactt gacccgtact
 qcqqatqqqq tcteinqcttq taaatctacc caqqatccqa tqttcactcc qaaaqqtct

<210> 6
<211> 122
<212> PRT
<213> Pseudomonas aeruginosa

<400> 6
Ala Leu Glu Gly Thr Glu Phe Ala Arg Ser Glu Gly Ala Ser Ala Leu
1 5 10 15
Ala Thr Ile Asn Pro Leu Lys Thr Thr Val Glu Glu Ser Leu Ser Arg
20 25 30
Gly Ile Ala Gly Ser Lys Ile Lys Ile Gly Thr Thr Ala Ser Thr Ala
35 40 45
Thr Glu Thr Tyr Ala Gly Val Glu Pro Asp Ala Asn Lys Leu Gly Val
50 55 60
Ile Ala Val Ala Ile Glu Asp Ser Gly Ala Gly Asp Ile Thr Phe Thr
65 70 75 80
Phe Gln Thr Gly Thr Ser Ser Pro Lys Asn Ala Thr Lys Val Ile Thr
85 90 95
Leu Asn Arg Thr Ala Asp Gly Val Trp Ala Cys Lys Ser Thr Gln Asp
100 105 110
Pro Met Phe Thr Pro Lys Gly Ser Asp Asn
115 120

<210> 7
<211> 381
<212> DNA
<213> Pseudomonas aeruginosa

<220>
<221> CDS
<222> (0)...(0)

<400> 7
gcgctcgagg gtaccgaatt cgcgggttacc caggtgaccc gtcgggttag tgaagttagc 60
gcgctgaaga cgcgtcggtt gtcggcgatt ctggaaaggaa aggagatttt ttccagcg 120
actcctaaag atacccatgtt tgacattggc ttcaccgagt ctactttgtt agatggttct 180
ggtaagagtc agatccaggt aacggacaat aaagatggca cccgttgagg ggtcgctacc 240
ttgggttaat cttctggttc cgccatcaa ggggctgtaa tcactgttcc gcgtaaaaat 300
gacggagtct ggaactgcaa aatcacaaa actcctacag cttggaaagcc caactacgct 360
ccggctaatt gcccgaattt c 381

<210> 8
<211> 127
<212> PRT
<213> Pseudomonas aeruginosa

<400> 8
Ala Leu Glu Gly Thr Glu Phe Ala Arg Thr Gln Val Thr Arg Ala Val
1 5 10 15
Ser Glu Val Ser Ala Leu Lys Thr Ala Ala Glu Ser Ala Ile Leu Glu
20 25 30
Gly Lys Glu Ile Val Ser Ser Ala Thr Pro Lys Asp Thr Gln Tyr Asp
35 40 45
Ile Gly Phe Thr Glu Ser Thr Leu Leu Asp Gly Ser Gly Lys Ser Gln
50 55 60
Ile Gln Val Thr Asp Asn Lys Asp Gly Thr Val Glu Leu Val Ala Thr
65 70 75 80
Leu Gly Lys Ser Ser Gly Ser Ala Ile Lys Gly Ala Val Ile Thr Val
85 90 95
Ser Arg Lys Asn Asp Gly Val Trp Asn Cys Lys Ile Thr Lys Thr Pro

DRAFT - 02/2004

100 105 110
Thr Ala Trp Lys Pro Asn Tyr Ala Pro Ala Asn Cys Pro Asn Ser
115 120 125

<210> 9
<211> 381
<212> DNA
<213> Pseudomonas aeruginosa

<220>
<221> CDS
<222> (0)...(0)

<400> 9

gcgctcgagg gtaccgaatt ctctcgctct caggtctcca gggttatggc ggaggctggc 60
tccttgaaga ctgcagttga ggcctgcctc caggatggtc gtactgctgt gggtaactgct 120
gctggtaat gcgatccggg tgcgacgggt tccagttgt tgactgggtc ttctcagact 180
tctcaaacc accactatca ttgcgacttt tggtaacggc gcatccgcag ctatttctgg ccagactctg 240
acctggactc gtgatgttaa tggtggttgg agctgtgcta ctaccgtaga tgctaaattc 300
cgtcctaattc gctgtactga c 360
381

<210> 10
<211> 127
<212> PRT
<213> Pseudomonas aeruginosa

<400> 10

Ala Leu Glu Gly Thr Glu Phe Ser Arg Ser Gln Val Ser Arg Val Met
1 5 10 15
Ala Glu Ala Gly Ser Leu Lys Thr Ala Val Glu Ala Cys Leu Gln Asp
20 25 30
Gly Arg Thr Ala Val Gly Thr Ala Ala Gly Gln Cys Asp Pro Gly Ala
35 40 45
Thr Gly Ser Ser Leu Leu Thr Gly Ala Ser Gln Thr Ser Gln Thr Leu
50 55 60
Pro Thr Asn Thr Gly Val Pro Gln Val Leu Asp Pro Leu Thr Thr Gln
65 70 75 80
Thr Thr Ile Ile Ala Thr Phe Gly Asn Gly Ala Ser Ala Ala Ile Ser
85 90 95
Gly Gln Thr Leu Thr Trp Thr Arg Asp Val Asn Gly Gly Trp Ser Cys
100 105 110
Ala Thr Thr Val Asp Ala Lys Phe Arg Pro Asn Gly Cys Thr Asp
115 120 125

<210> 11
<211> 507
<212> DNA
<213> Pseudomonas aeruginosa

<220>
<221> CDS
<222> (0)...(0)

<400> 11

gcgctcgagc accatcatca ccatggtggt ggtggcgaga ttgaggccct caaggctgaa 60
atcgaagccc taaaggccga gataagaagca cttaaaggcgag agatcgaggc gctaaaagcg 120
gaaatagagg ctctgaaggc aggccgtgga ggagaattcg ctcgttcggg aggccatct 180
gctcttgctt cggtaatcc gttgaagact accgttgaag aggccgttcc tcgtgggtgg 240
agcgtgaaga gcggtagacagg tacagaggac gctactaaga aagaggttcc tctgggggtg 300
gcggcagatg ctaacaaact gggtaatc gcaactcaaac ccgatcctgc tgatggtaat 360
cgagatatca cttegacttt cactatggc ggtgcaggac cgaagaataa agggaaaatt 420

attaccctga ctcgtactgc agctgatggc ctctgaaat gcaccagtga tcaggatgag 480
cagtttattc cgaaagggtt ctcttagg 507

<210> 12
<211> 169
<212> PRT
<213> Pseudomonas aeruginosa

<400> 12
Ala Leu Glu His His His His Gly Gly Gly Gly Glu Ile Glu Ala
1 5 10 15
Leu Lys Ala Glu Ile Glu Ala Leu Lys Ala Glu Ile Glu Ala Leu Lys
20 25 30
Ala Glu Ile Glu Ala Leu Lys Ala Glu Ile Glu Ala Leu Lys Ala Gly
35 40 45
Gly Gly Gly Glu Phe Ala Arg Ser Glu Gly Ala Ser Ala Leu Ala Ser
50 55 60
Val Asn Pro Leu Lys Thr Thr Val Glu Glu Ala Leu Ser Arg Gly Trp
65 70 75 80
Ser Val Lys Ser Gly Thr Gly Thr Glu Asp Ala Thr Lys Lys Glu Val
85 90 95
Pro Leu Gly Val Ala Ala Asp Ala Asn Lys Leu Gly Thr Ile Ala Leu
100 105 110
Lys Pro Asp Pro Ala Asp Gly Thr Ala Asp Ile Thr Leu Thr Phe Thr
115 120 125
Met Gly Ala Gly Pro Lys Asn Lys Gly Lys Ile Ile Thr Leu Thr
130 135 140
Arg Thr Ala Ala Asp Gly Leu Trp Lys Cys Thr Ser Asp Gln Asp Glu
145 150 155 160
Gln Phe Ile Pro Lys Gly Cys Ser Arg
165

<210> 13
<211> 507
<212> DNA
<213> Pseudomonas aeruginosa

<220>
<221> CDS
<222> (0)...(0)

<400> 13

gcgctcgagc accatcatca ccatggtggt ggtggcgagg tatccgcttt agagaaaagaa 60
gtttctgctc tcgaaaaaga ggtcagtgc ctggaaaaag aggtgtcagc cttggaaaag 120
gaagtatcg cacttgagaa gggcggtgga ggagaattcg ctcgttcgga aggccatct 180
gctcttgctt cggtaatcc gttgaagact accgttgaag aggcgccttc tcgtgggttgg 240
agcgtgaaga gcggtacagg tacagaggac qctactaaga aagaggttcc tctgggggtg 300
gcggcagatg ctaacaaact ggttactatc gcactcaaac ccgatcctgc tgatggact 360
gcagatatca ctttgacttt cactatgggc ggtgcaggac cgaagaataa agggaaaatt 420
attaccctga ctcgtactgc agctgatggc ctctgaaat gcaccagtga tcaggatgag 480
cagtttattc cgaaagggtt ctcttagg 507

<210> 14
<211> 169
<212> PRT
<213> Pseudomonas aeruginosa

<400> 14

Ala Leu Glu His His His His Gly Gly Gly Glu Val Ser Ala
1 5 10 15
Leu Glu Lys Glu Val Ser Ala Leu Glu Lys Glu Val Ser Ala Leu Glu
20= 25 30

Lys Glu Val Ser Ala Leu Glu Lys Glu Val Ser Ala Leu Glu Lys Gly
 35 40 45
 Gly Gly Gly Glu Phe Ala Arg Ser Glu Gly Ala Ser Ala Leu Ala Ser
 50 55 60
 Val Asn Pro Leu Lys Thr Thr Val Glu Glu Ala Leu Ser Arg Gly Trp
 65 70 75 80
 Ser Val Lys Ser Gly Thr Gly Thr Glu Asp Ala Thr Lys Lys Glu Val
 85 90 95
 Pro Leu Gly Val Ala Ala Asp Ala Asn Lys Leu Gly Thr Ile Ala Leu
 100 105 110
 Lys Pro Asp Pro Ala Asp Gly Thr Ala Asp Ile Thr Leu Thr Phe Thr
 115 120 125
 Met Gly Gly Ala Gly Pro Lys Asn Lys Gly Lys Ile Ile Thr Leu Thr
 130 135 140
 Arg Thr Ala Ala Asp Gly Leu Trp Lys Cys Thr Ser Asp Gln Asp Glu
 145 150 155 160
 Gln Phe Ile Pro Lys Gly Cys Ser Arg
 165

<210> 15
 <211> 525
 <212> DNA
 <213> *Pseudomonas aeruginosa*

<220>
 <221> CDS
 <222> (0)...(0)

<400> 15

gcgctcgagc accatcatca ccatggtggt ggtggcgaga ttgaggccct caaggctgaa	60
atcgaagccc taaaggccga gatagaagca cttaaggcag agatcgagcc gctaaaagcg	120
gaaatagagg ctctgaaggc aggccgtgga ggagaattcg cacgcgcctca gcttagcgaa	180
cgcacatgacc tggccagtgg tctcaagacg aaagtgagcg atatcttc tcaggatggg	240
tcctgcccgg ctaatactgc tgccacggca ggcacatcgaga aagataccga catcaacggc	300
aagtatgttgc ccaaggtaac aactggtggc accgcagctg cgtctggtgg ttgcactatc	360
gttgctacta tgaaaggctc tgatgtggct actcctctga gggggaaaac tctgactttg	420
actcttaggaa atgctgacaa gggttcttac acttggccct gtacttccaa cgccagataac	480
aagtacctgc caaaaacctg ccagactgct accactacca ctccg	525

<210> 16
 <211> 175
 <212> PRT
 <213> *Pseudomonas aeruginosa*

<400> 16

Ala Leu Glu His His His His Gly Gly Gly Glu Ile Glu Ala
 1 5 10 15
 Leu Lys Ala Glu Ile Glu Ala Leu Lys Ala Glu Ile Glu Ala Leu Lys
 20 25 30
 Ala Glu Ile Glu Ala Leu Lys Ala Glu Ile Glu Ala Leu Lys Ala Gly
 35 40 45
 Gly Gly Gly Glu Phe Ala Arg Ala Gln Leu Ser Glu Arg Met Thr Leu
 50 55 60
 Ala Ser Gly Leu Lys Thr Lys Val Ser Asp Ile Phe Ser Gln Asp Gly
 65 70 75 80
 Ser Cys Pro Ala Asn Thr Ala Ala Thr Ala Gly Ile Glu Lys Asp Thr
 85 90 95
 Asp Ile Asn Gly Lys Tyr Val Ala Lys Val Thr Thr Gly Gly Thr Ala
 100 105 110
 Ala Ala Ser Gly Gly Cys Thr Ile Val Ala Thr Met Lys Ala Ser Asp
 115 120 125
 Val Ala Thr Pro Leu Arg Gly Lys Thr Leu Thr Leu Thr Leu Gly Asn

130	135	140
Ala Asp Lys Gly Ser Tyr Thr Trp Ala Cys Thr Ser Asn Ala Asp Asn		
145	150	155
Lys Tyr Leu Pro Lys Thr Cys Gln Thr Ala Thr Thr Thr Thr Pro		
165	170	175

<210> 17
 <211> 525
 <212> DNA
 <213> Pseudomonas aeruginosa

<220>
 <221> CDS
 <222> (0)...(0)

<400> 17

gcgctcgagc accatcatca ccatggtggt ggtggcgagg tatccgctt agagaaaagaa	60
gtttctgctc tcgaaaaaga ggtcagtgc ctggaaaaag aggtgtcagc cttgaaaaag	120
gaagtatcag cacttgagaa gggcggtgga qqagaattcg cacgcgcctca gcttagcgaa	180
cgcacatgaccc tggccagtgg tctcaagacg aaagtgagcg atatcttc tcagagatggg	240
tcctgcccgg ctaatactgc tgccacggca ggcacatcgaga aagataccga catcaacggc	300
aagtatgtt ccaaggtAAC aactggtgGC accgcagCTG cgtctggGG ttgactatC	360
gttgctacta tgaaAGCCTC tgatgtggct actcctctGA gggggAAAAC tctgactttG	420
actcttaggAA atgctgacAA gggttcttAC acttgggCt gtacttccAA cgcaGataAC	480
aagtacctgc caaaaACCTG ccagactgct accactacca ctccg	525

<210> 18
 <211> 175
 <212> PRT
 <213> Pseudomonas aeruginosa

<400> 18

Ala Leu Glu His His His His Gly Gly Gly Glu Val Ser Ala	
1 5 10 15	
Leu Glu Lys Glu Val Ser Ala Leu Glu Lys Glu Val Ser Ala Leu Glu	
20 25 30	
Lys Glu Val Ser Ala Leu Glu Lys Glu Val Ser Ala Leu Glu Lys Gly	
35 40 45	
Gly Gly Gly Glu Phe Ala Arg Ala Gln Leu Ser Glu Arg Met Thr Leu	
50 55 60	
Ala Ser Gly Leu Lys Thr Lys Val Ser Asp Ile Phe Ser Gln Asp Gly	
65 70 75 80	
Ser Cys Pro Ala Asn Thr Ala Ala Thr Ala Gly Ile Glu Lys Asp Thr	
85 90 95	
Asp Ile Asn Gly Lys Tyr Val Ala Lys Val Thr Thr Gly Gly Thr Ala	
100 105 110	
Ala Ala Ser Gly Gly Cys Thr Ile Val Ala Thr Met Lys Ala Ser Asp	
115 120 125	
Val Ala Thr Pro Leu Arg Gly Lys Thr Leu Thr Leu Thr Leu Gly Asn	
130 135 140	
Ala Asp Lys Gly Ser Tyr Thr Trp Ala Cys Thr Ser Asn Ala Asp Asn	
145 150 155 160	
Lys Tyr Leu Pro Lys Thr Cys Gln Thr Ala Thr Thr Thr Thr Pro	
165 170 175	

<210> 19
 <211> 504
 <212> DNA
 <213> Pseudomonas aeruginosa

<220>
 <221> CDS

099999999999999999

<222> (0)...(0)

<400> 19

gcgcgtcgagc accatcatca ccatgggtggt ggtggcgaga ttgaggccct caaggctgaa	60
atcgaaggccc taaaggccga gatagaagca ctttaaggcag agatcgagc gctaaaagcg	120
gaaatagagg ctctgaaggc aggccgtggg ggagaattcg cgcgttcgga aggtgcttcg	180
gcgcgtggcga cgatcaaccc gctgaagacc actgttgaag agtcgctgtc gcgtggaatt	240
gctggtagca aaattaaaaat tggtaactact gcttctactg cgaccgaaac atatgccggc	300
gtcgagccgg atgccaacaa gttgggtgtta attgctgttag caatcgaaga tagtggtgcg	360
ggtgatatta cctttacctt ccagactgggt acctctagtc ccaagaatgc tactaaagtt	420
atcactctga accgtactgc ggtggggtc tgggcttgcataatctaccca ggatccgatg	480
ttcactccga aaggttctga taac	504

<210> 20

<211> 168

<212> PRT

<213> Pseudomonas aeruginosa

<400> 20

Ala Leu Glu His His His His Gly Gly Gly Glu Ile Glu Ala	
1 5 10 15	
Leu Lys Ala Glu Ile Glu Ala Leu Lys Ala Glu Ile Glu Ala Leu Lys	
20 25 30	
Ala Glu Ile Glu Ala Leu Lys Ala Glu Ile Glu Ala Leu Lys Ala Gly	
35 40 45	
Gly Gly Gly Glu Phe Ala Arg Ser Glu Gly Ala Ser Ala Leu Ala Thr	
50 55 60	
Ile Asn Pro Leu Lys Thr Thr Val Glu Glu Ser Leu Ser Arg Gly Ile	
65 70 75 80	
Ala Gly Ser Lys Ile Lys Ile Gly Thr Thr Ala Ser Thr Ala Thr Glu	
85 90 95	
Thr Tyr Ala Gly Val Glu Pro Asp Ala Asn Lys Leu Gly Val Ile Ala	
100 105 110	
Val Ala Ile Glu Asp Ser Gly Ala Gly Asp Ile Thr Phe Thr Phe Gln	
115 120 125	
Thr Gly Thr Ser Ser Pro Lys Asn Ala Thr Lys Val Ile Thr Leu Asn	
130 135 140	
Arg Thr Ala Asp Gly Val Trp Ala Cys Lys Ser Thr Gln Asp Pro Met	
145 150 155 160	
Phe Thr Pro Lys Gly Ser Asp Asn	
165	

<210> 21

<211> 504

<212> DNA

<213> Pseudomonas aeruginosa

<220>

<221> CDS

<222> (0)...(0)

<400> 21

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gtttctgctc tcgaaaaaga ggtcagtgtct ctggaaaaag agtgtcagc cttggaaaaag	120
gaagtatcatcg cacttgagaa gggcggtggg ggagaattcg cgcgttcgga aggtgcttcg	180
gcgcgtggcga cgatcaaccc gctgaagacc actgttgaag agtcgctgtc gcgtggaatt	240
gctggtagca aaattaaaaat tggtaactact gcttctactg cgaccgaaac atatgccggc	300
gtcgagccgg atgccaacaa gttgggtgtta attgctgttag caatcgaaga tagtggtgcg	360
ggtgatatta cctttacctt ccagactgggt acctctagtc ccaagaatgc tactaaagtt	420
atcactctga accgtactgc ggtggggtc tgggcttgcataatctaccca ggatccgatg	480
ttcactccga aaggttctga taac	504

<210> 22
<211> 168
<212> PRT
<213> *Pseudomonas aeruginosa*

<400> 22

Ala	Leu	Glu	His	His	His	His	His	Gly	Gly	Gly	Gly	Glu	Val	Ser	Ala
1		5						10					15		
Leu	Glu	Lys	Glu	Val	Ser	Ala	Leu	Glu	Lys	Glu	Val	Ser	Ala	Leu	Glu
		20						25					30		
Lys	Glu	Val	Ser	Ala	Leu	Glu	Lys	Glu	Val	Ser	Ala	Leu	Glu	Lys	Gly
		35					40					45			
Gly	Gly	Gly	Glu	Phe	Ala	Arg	Ser	Glu	Gly	Ala	Ser	Ala	Leu	Ala	Thr
			50			55					60				
Ile	Asn	Pro	Leu	Lys	Thr	Thr	Val	Glu	Glu	Ser	Leu	Ser	Arg	Gly	Ile
65					70			75			80				
Ala	Gly	Ser	Lys	Ile	Lys	Ile	Gly	Thr	Thr	Ala	Ser	Thr	Ala	Thr	Glu
			85				90					95			
Thr	Tyr	Ala	Gly	Val	Glu	Pro	Asp	Ala	Asn	Lys	Leu	Gly	Val	Ile	Ala
				100			105					110			
Val	Ala	Ile	Glu	Asp	Ser	Gly	Ala	Gly	Asp	Ile	Thr	Phe	Thr	Phe	Gln
			115				120					125			
Thr	Gly	Thr	Ser	Ser	Pro	Lys	Asn	Ala	Thr	Lys	Val	Ile	Thr	Leu	Asn
			130			135					140				
Arg	Thr	Ala	Asp	Gly	Val	Trp	Ala	Cys	Lys	Ser	Thr	Gln	Asp	Pro	Met
			145			150					155			160	
Phe	Thr	Pro	Lys	Gly	Ser	Asp	Asn								
				165											

9